

Recombinant Mouse B7-H1 (PD-L1, CD274)-Fc Chimera (carrier-free)

Catalog# / Size	758202 / 10 µg 758204 / 25 µg 758206 / 100 µg 758208 / 500 µg
Regulatory Status	RUO
Other Names	CD274, Programmed cell death 1 ligand 1 (PD-L1), B7 homolog 1 (B7h1)
Description	<p>PD-L1 is a type I transmembrane protein of 290 amino acids, and it is a member of the B7 family. Mouse PD-L1 has 70% amino acid identity to its human orthologue. Binding of PD-L1 to its receptor PD-1 leads to the inhibition of T cell receptor-mediated lymphocyte proliferation and cytokine secretion. PD-L1 induces IL-10 production in T cells stimulated with low levels of anti-CD3. PD-L1/PD-1 interaction suppresses immune responses against autoantigens and tumors and plays an important role in the maintenance of peripheral immune tolerance. Disruption of the PD-L1 gene leads to up-regulated T cell responses and the generation of self-reactive T cells. Antibodies against PD-1 or PD-L1 leads to increased antitumor immunity. PDL1 has an important role in conferring fetomaternal tolerance in an allogeneic pregnancy model; antibodies against PD-L1 lead to a breakdown in maternal tolerance to the fetus. PD-L1 shares its receptor with PD-L2 (CD273, B7-DC). PD-L2 has a more limited expression than PD-L1, being expressed on activated macrophages and dendritic cells. PD-L1 is expressed in many tumors, and the interaction with its receptor activates signaling pathways that inhibit T-cell activity and therefore the antitumor immune response. Antibodies targeting PD1 or PD-L1 block the PD1 pathway and reactivate T cell activity.</p>

Product Details

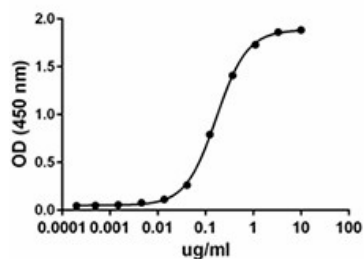
Source	Mouse B7-H1, amino acids (Phe19-Thr238) (Accession# NM_021893), was expressed in 293E cells. Human IgG-Fc is in the carboxy-terminus.
Molecular Mass	The 458 amino acid recombinant protein has a predicted molecular mass of approximately 51.5kD. The DTT-reduced and non-reduced protein migrate at approximately 70 - 80kD and 140kD respectively by SDS-PAGE. The predicted N-terminal amino acid is Phe.
Purity	>95%, as determined by Coomassie stained SDS-PAGE.
Formulation	0.22 µm filtered protein solution is in PBS, pH 7.2.
Endotoxin Level	Less than 0.1 EU per µg of protein as determined by the LAL method.
Concentration	10 and 25 µg sizes are bottled at 200 µg/mL. 100 µg size and larger sizes are lot-specific and bottled at the concentration indicated on the vial. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to six months, or at -70°C or colder until the expiration date. For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20°C or colder. Stock solutions can also be prepared at 50 - 100 µg/mL in appropriate sterile buffer, carrier protein such as 0.2 - 1% BSA or HSA can be added when preparing the stock solution. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
Activity	Immobilized mouse PD-L1 binds mouse PD-1 in a dose dependent manner. The ED ₅₀ = 0.1 - 0.5 µg/ml.
Recommended Usage	Bioassay
Application Notes	BioLegend carrier-free recombinant proteins provided in liquid format are shipped on blue-ice. Our comparison testing data indicates that when handled and stored as recommended, the liquid format has equal or better stability and shelf-life compared to commercially available lyophilized proteins after reconstitution. Our liquid proteins are verified in-house to maintain activity after shipping on blue ice and are backed by our 100% satisfaction guarantee . If you have any concerns, contact us at tech@biolegend.com .

Product Citations

Antigen Details

Structure	Dimer.
Distribution	APC, monocytes, dendritic cells, expressed in nonlymphoid tissues, and stromal cell.
Function	Enhances CD28-independent T-helper cell function, suppresses immune responses against autoantigens, and participates in fetomaternal tolerance.
Interaction	Antigen-stimulated T and B cells, regulatory T cells, follicular T and B cells, dendritic cells, and monocytes.
Ligand/Receptor	PD-1 (CD279).
Bioactivity	Immobilized mouse PD-L1 binds to its receptor PD-1.
Cell Type	Embryonic Stem Cells
Biology Area	Immunology, Cancer Biomarkers, Costimulatory Molecules, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules, Immune Checkpoint Receptors, Soluble Receptors
Antigen References	<ol style="list-style-type: none">1. Dong H, et al. 1999. <i>Nat. Med.</i> 5:1365.2. Freeman GJ, et al. 2000. <i>J. Exp. Med.</i> 192:1027.3. Latchman Y, et al. 2001. <i>Nat. Immunol.</i> 2:261.4. Latchman YE, et al. 2004. <i>Proc. Natl. Acad. Sci. USA</i> 101:10691.5. Guleria I, et al. 2005. <i>J. Exp. Med.</i> 202:231.6. Lin DY, et al. 2008. <i>Proc. Natl. Acad. Sci. USA</i> 105:3011.7. Dai S, et al. 2014. <i>Cell Immunol.</i> 290:72.8. Melero I, et al. 2015. <i>Nat. Rev. Cancer</i> 15:457.
Gene ID	60533

Product Data



Immobilized mouse PD-L1 binds mouse PD-1 in a dose dependent manner.

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